To: File

Oct. 19/82.

From: P.W.A. Severin

020743

WINDY - CRAGGY 1982 DRILLING

DDH - 12-82 - the most N. westerly hole drilled 400 metres NW of #11.
- drilled SW at 45°

		% Cu	% Co	% Zn	Ag	Au
0.0 - 45.0 ft.	Black argillite + siltstone.					
45.0 - 82.0	FH zone. - alt'd volc.					
82.0 - 124.0	FH zone - clay formation					
124.0 - 180.0	Massive pyrite - vfg friable	(0.48-1.87)	(0.04-0.11)	(0.04-0.12)	(.09-6.03)	(.002 / 0.040)
180 - 231	Massive pyrite - evidence of weathering gone by 210ft.	(0.49-6.68)	(0.07-0.22)	(0.01-0.85)	(0.05-1.65)	(.005-.060)
		Cu	Co	Zn	Ag	Au
231 - 301	Massive po. with Cp stks + diss. blebs.	(0.48-5.04)	(.09-.15)	(.01-.14)	(.05-.15)	(.002-.010)
301 - 466	Massive - SMS pyrite - minor sections of mass. po.	(0.77-3.46)	(.06-.14)	(.02-1.76)	(.05-.15)	(.002-.020)
466 - 481	Massive banded Po-Py and str. Cp. Sph common.	(1.24-1.72)	(.06-.08)	(.80-1.07)	(.19-.33)	(.01-.015)
481 - 557	Massive pyrite with some po. "Zinc Zone"	(.03-1.65)	(.006-.058)	(.12-3.0)	(.05-.88)	(.002-.020)
557 - 558.5	Schistose Tuff	.24	.012	.96	.05	.002
558.5 - 577.0	SMS in sideritic matrix. "Zinc Zone"	(.61-1.28)	.022	(1.29-1.31)	(.29-.57)	.025
577.0 - 579.0	Stringers in chlc volcanics (tuff).					
579.0 - 615.0	Str to SMS. "Zinc Zone"	(.52-1.92)	(.026-.035)	(1.22-1.61)	(.15-.68)	(.005-.030)
615 - 868	Volcanic flows + tuffs <10% diss + str. sulphides.					
868 - 987	Str. sulphides in volc.	(.15-1.34)	(.005-.098)	(.01-.06)	(.05)	(.002-.010)

987 - 1280	Str. to SMS - Po. in chlc volcanics + cherty tuffs	(.12 - 2.58)(.014-.11)(.01-.02)(.05)(.002-.015).
	Section 1196-1236' (40')	(1.82-2.53)(.046-.080)(.01)(.05)(.002-.015).
1280 - 1362	Argillite	(.10 - 3.40)(.005-.014)(.01-.02)(.05)(.002-.010).

End of hole.

	From	To	Ft.	% Cu	% Co	% Zn.	
Cu Zone	178' -	351'	173'	3.09	0.122	0.09	i.e using a 2% Cu cut-off.
	351.0 -	477'		(.77-2.47)	(.058-.14)	(.02-1.76)	M.S.
Zn Zone	477' -	614'	137'	1.12	0.033	1.68	
	614 -	868	Tuff				
	868 -	1196	Strs.				
Cu Zone	1196' -	1236'	40'	2.20	0.064	0.01	
	1236 -	1280	Strs				

Note

1). - weathering down to 210 feet. - sporadic Cu + Zn values up to 3% Cu, .11 % Co, 1.48 % Zn. in Mass. Py. Erratic nature likely due to weathering. Some chalcanthite ($CuSO_4 \cdot 5H_2O$) on fractures (turquoise to blue) is from 178 - 210 some supergene enrichment. ie. 6.68% Cu. (178-188')

2) Co assoc. with massive py - cp zone and massive po - cp zone.

3) metal zoning suggests that the MS are facing SW, however abundance of stringers ~~occur in~~ therefore occur in H.W.

4). #11 extensive Cu values 1086' — 1604 generally 1-3% Cu
Some supergene 20' of 12.9% Cu @ 1374-1394'
No evidence of "Zn zone".

5). #9 Cu values generally <1% except 2.20% Cu/30' 1590-1620'

Windy - Craggy